

CLAIMS

1. A telephone handset for use in a communications infrastructure, the telephone handset comprising:
 - an audio input module for receiving audio from a user;
 - 5 an audio output module for rendering audio to the user;
 - an audio loopback path to present audio from the audio input module to the audio output module so as to be heard by the user; and
 - wherein the audio loopback path presents audio at a loopback rate depending upon a selectable rate variable.
- 10 2. The telephone handset of claim 1, wherein the audio input module receives speech audio at a given speaking rate and wherein the loopback rate alters the speaking rate in the audio loopback path.
- 15 3. The telephone handset of claim 2, wherein the speaking rate in the audio loopback path maintains a pitch of the speech audio received in the audio input module.
4. The telephone handset of claim 3, further comprising:
 - 20 a user interface for selectively adjusting the selectable rate variable.
5. The telephone handset of claim 3, further comprising:
 - a receiver for receiving, from a second telephone handset, audio and a rate variable set from a second audio handset.
- 25 6. The telephone handset of claim 3, wherein the audio loopback path presents audio at a loopback rate through a SOLA (Synchronized OverLap and Add) function.
7. The telephone handset of claim 3, further comprising:
 - 30 a memory location to store a rate variable for a given user.

8. The telephone handset of claim 3, wherein the audio output module further comprises a vocoder for detecting a word rate in the audio loopback path using at least one of:

an energy decision metric;

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a voicing decision metric; and

a tonality measure.

9. The telephone handset of claim 8, further comprising:

a memory location to store a rate variable and the word rate for a given user.

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10. A communication system for adjusting audio rate in a handset comprising:
a first handset;
a second handset;
a communication infrastructure for enabling audio captured at the first handset
5 to be presented at the second handset;
wherein the audio captured at the first handset is also presented through a
loopback path to an earpiece in the first handset; and
wherein the loopback path includes a loopback rate for speech audio through a
SOLA (Synchronized OverLap and Add) function with a selectable rate variable.
- 10 11. The communication system of claim 10, wherein the first handset includes a
user interface for adjusting the selectable rate variable of the first handset.
12. The communication system of claim 11, wherein the first handset includes a
15 memory location for storing the selectable rate variable for association with the
second handset.
13. The communication system of claim 10, wherein the second handset includes
a memory location for storing the selectable rate variable for association with the first
20 handset.
14. The communication system of claim 10, wherein the second handset includes
a user interface for adjusting the selectable rate variable of the first handset.
- 25 15. The communication system of claim 10, wherein the first handset includes a
vocoder for detecting a word rate detection in the loopback path using at least one of:
an energy decision metric;
a voicing decision metric; and
a tonality measure.

16. The communication system of claim 15, wherein the first handset includes a memory location for storing the selectable rate variable and the word rate for association with the second handset.

17. A computer readable medium containing programming instructions for executing on a telephone handset, the programming instructions comprising:

- capturing speech audio in a loopback path between an audio input module and an audio output module, wherein the loopback path presents speech audio received at the audio input module to the audio output module; and
adjusting the speech audio captured in the loopback path based up a selectactable rate variable.

18. The computer readable medium of claim 17, wherein the programming instructions for capturing include capturing the speech audio at a given speaking rate and wherein the programming instruction of adjusting the speech audio captured includes adjusting the speaking rate in the loopback path.

19. The computer readable medium of claim 17, wherein the programming instructions for adjusting the speech audio captured includes maintaining the pitch of the speech audio.

20. The computer readable medium of claim 17, wherein the programming instructions for adjusting the speech audio captured includes receiving from a user interface an adjustment to the selectable rate variable.

21. The computer readable medium of claim 17, wherein the programming instructions for adjusting the speech audio captured includes receiving from a user interface from a second handset adjustment to the selectable rate variable.

22. The computer readable medium of claim 17, wherein the programming instructions for adjusting the speech audio captured includes adjusting the speech rate through a SOLA (Synchronized OverLap and Add) function.